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## PRE-APPEAL BRIEF REQUEST FOR REVIEW

Docket Number (Optional)

068986.0107

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on 10/3/06  
Signature 

Typed or printed name Jason Lee Irby

Application Number

09/817,016

Filed

03/24/2001

First Named Inventor

Mark B. Lyles

Art Unit

1641

Examiner

Chin, Christopher

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).

Note: No more than five (5) pages may be provided.

I am the

- ☐ applicant/inventor.
- ☐ assignee of record of the entire interest.  
See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed.  
(Form PTO/SB/96)

☒ attorney or agent of record.  
Registration number 33,790

☐ attorney or agent acting under 37 CFR 1.34.  
Registration number if acting under 37 CFR 1.34 \_\_\_\_\_

  
Signature

Bruce W. Slayden II

Typed or printed name

512.322.2606

Telephone number

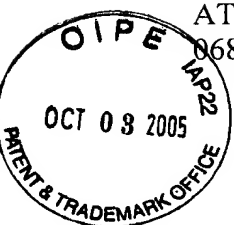
10/3/2005  
Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below\*.

☐ \*Total of \_\_\_\_\_ forms are submitted.

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ATTORNEY DOCKET NO.:  
068986.0107

PATENT APPLICATION  
09/817,016

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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

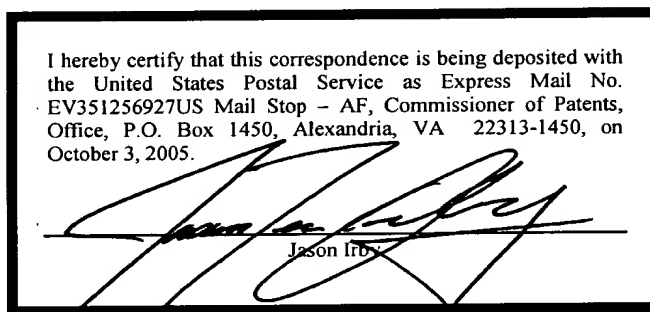
In re Application of: Mark B. Lyles  
Serial No.: 09/817,016  
Filing Date: March 24, 2001  
Group Art Unit: 1641  
Examiner: Chin, Christopher L.  
Title: **DIAGNOSTIC DEVICES CONTAINING POROUS MATERIALS**

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**PRE-APPEAL BRIEF REQUEST FOR REVIEW**

The Examiner finally rejected claims 41, 43-44, 46-48, and 56-58 in the Advisory Action mailed August 9, 2005, stating that the proposed amendments after final raise new issues that would require further consideration and/or search. Applicant respectfully disagrees.

Claims 41, 43-44, 47-48 and 56-58 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent 5,629,186 issued to Robert D. Yasukawa et al. (hereinafter "Yasukawa") in view of U.S. Patent 4,560,504 issued to Edward C. Arnold (hereinafter "Arnold"). In addition, claims 41, 43-44, 46-48 and 56-58 also stand rejected under 35 U.S.C. §103(a) as being unpatentable over PCT International Publication Number WO 96/24631 filed by Lyles et al. (hereinafter "Lyles") in view of Arnold.

In order to establish a *prima facie* case of obviousness, the references must disclose all claimed limitations. *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974). Furthermore, according to §2143 of the Manual of Patent Examining Procedure, to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some

suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991).

Here, all the limitations of the claimed embodiment of the invention are not taught by the cited art combinations. Independent Claim 41 claims a diagnostic device comprised of a porous material having mean pore diameters greater than about 10 microns and a density equal to or greater than about 6 pounds per cubic foot with a compound bound thereto. Neither Lyles, Arnold nor Yasukawa alone, nor in combination with each other, teach a porous material having mean pore diameters greater than about 10 microns and a density equal to or greater than about 6 pounds per cubic foot with a compound bound thereto. Consequently, Applicant requests withdrawal of the rejection.

In relation to the Lyles/Arnold-based rejection, neither Lyles, et al. nor Arnold alone or in combination teach all the limitations of the amended claims, namely the porous material having the claimed compounds bound thereto. Lyles, et al. discloses, as the Title confirms, a "Ceramic Fused Fiber Enhanced Dental Material." (emphasis added) Lyles, et al. disclose "significantly improved particulates that are useful as fillers in dental restorative and prosthetic compositions" (Lyles et al., page 3, lines 12-14) (emphasis added) and "methods for the direct filling of teeth utilizing the filler/reinforcer of the present invention with an initially liquid settable filling material comprising, in addition to filler, a binder wherein the material is allowed to harden after insertion in a tooth." Obviously, Lyles et al. is directed to a particulate filler for use in a settable composition as a replacement for traditional metal-based fillings for cavities. Lyles et al. is not directed to a "diagnostic device comprising. . . a porous material" with a compound bound to the porous material. As stated, Lyles et al. merely discloses a particulate filler for teeth filling compositions.

Arnold is directed to "Carboxyl Anchored Immobilized Antibodies" made by reacting "an animated core support with an antibody in the presence of a condensing agent which

promotes the formation of the amide linkage." (Title & Abstract) The "core support" is described as an "inorganic solid" and the inorganic solid may consist of "aluminas, silica, silica-alumina," etc. (Col. 3, Lines 5-14) It is clear that Lyles et al. and Arnold are directed to totally different non-analogous subject matters --- Lyles et al., teeth, and Arnold "immobilized antibodies." Consequently, it is respectfully submitted that Lyles et al. and Arnold are not properly combinable, *i.e.*, one of ordinary skill in the art trying to solve the problem to which the presently claimed embodiment of the invention solves, would not look to Lyles et al., a tooth filling composition comprising a particulate filler mixed with a settable liquid material to combine with Arnold, an immobilized antibody system. Withdrawal of the rejection is respectfully requested.

Further, even if Lyles et al. and Arnold were combined -- which the Applicant does not concede is proper -- the combination would not yield the present invention. Indeed, since Lyles et al. is directed to compositions comprising filler and an initially liquid settable material, it is unclear how Lyles et al. and Arnold would be combined. Lyles et al. only disclosed compositions comprising binder and filler, a two-phase system, and Arnold teaches just a "support." However, if one were to combine the two, it would seem the most likely result would be a "support" comprising an initially liquid settable binder and a filler used for Arnold's "carboxyl anchored immobilized antibodies" system. Such a system would not be useful for the use of the presently claimed embodiment of the invention. Clearly the "binder" of Lyles et al. would fill the voids of the "porous" support and yield it non-porous. The present claims are directed to a "porous material." Thus, withdrawal of the rejection is requested.

The pending claims have also been rejected under 35 U.S.C. § 103(a) as obvious over Yasukawa in view of Arnold. All claims require a porous material having a density "equal to or greater than about 6 pounds per cubic foot." The Examiner admits Yasukawa only teaches a porous material having "a density between 3.5 and 5.5 pounds per cubic foot." (Office Action, 12/13/2004, p. 3) However, the Examiner maintains that the claimed phrase "equal to or greater than about 6 pounds per cubic foot, given its broadest interpretation, encompasses the 5.5 pounds per cubic foot taught by Yasukawa." (Office Action, 06/02/2005, p. 2) First, Yasukawa does not teach a material having a density of "5.5 pounds per cubic foot," but

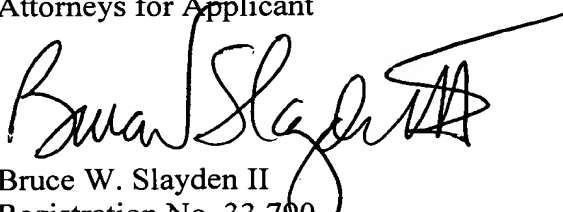
instead teaches a material having a density less than 5.5 pounds per cubic foot, i.e., "between 3.5 and 5.5 pounds per cubic foot." (emphasis added) Moreover, the claim language ignored by the Examiner, is not just "about 6 pounds per cubic foot" but "equal to or greater than about 6 pounds per cubic foot." Consequently, Applicant submits that Yasukawa does not teach materials having densities equal to or greater than about 6.0 pounds per cubic foot and the claim language does not encompass Yasukawa's material having a density below 5.5 pounds per cubic foot. Indeed, Yasukawa actually teaches away from the claimed invention by emphasizing its material must have a density below 5.5 pounds per cubic foot. The present invention is directed to a specific material having a density equal to or greater than about 6 pounds per cubic foot. And as admitted by the Examiner, the other reference, Arnold, is silent with respect to the specific material claimed and the claimed densities. Withdrawal of the rejection is requested.

Applicant submits this Pre-Appeal Brief Request for Review, along with a Notice of Appeal, and a check in the amount of \$500.00 to cover the filing fee for the Notice of Appeal. Applicant also encloses a Petition for Extension of Time and a check in the amount of \$60.00 for the fee for a 1-month extension of time.

If there are any matters concerning this request that may be cleared up in a telephone conversation, please contact Applicant's attorney, Bruce W. Slayden II, at 512.322.2606.

Respectfully submitted,

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10/3/2005